

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A Cartesian loop transmitter (100) comprising a forward path (102) and a feedback path (104), each of these paths comprising an I-channel and a Q-channel, as well as an isolator eliminator (106) ~~characterized in that~~ and wherein said transmitter (100) comprises:
 - a) a first low pass filter (138) and a first band pass filter (140) connected to I-channel at LP2;
 - b) a second low pass filter (142) and a second band pass filter (144) connected to Q-channel at LP2;
 - c) a first root mean square detector (146) collecting signal from said first low pass filter (138) and from said second low pass filter (142);
 - d) a second root mean square detector (148) collecting signal from said first band pass filter (140) and from said second band pass filter (144);
 - e) a divider (150) connected to said first and said second root mean square detectors (146 and 148);
 - f) a comparator (152) connected to said divider (150); and to
 - g) a microprocessor (154) connected to an input attenuators (108) and (110) on said I- and Q-channels.
2. (currently amended) The Cartesian loop transmitter (100) of claim 1 wherein a memory (156) is connected to said microprocessor (154).
3. (currently amended) A method of adjusting an output level of a Cartesian loop transmitter (100) in a digital radio system, the method comprising the steps of:
 - a) applying a factory predefined attenuation setting (202) for adjusting said output level if attenuation setting for a previous slot is not available (200), or b) applying said

attenuation setting obtained in the previous (204) slot for adjusting said output level in a current slot;

- e) b) measuring an on-channel baseband signal level (206) at LP2;
- d) c) measuring a noise level (208) at predefined frequency offset at LP2;
- e) d) calculating a ratio (214) of said noise level to said on-channel baseband signal level; and
- f) e) if said ratio is above a threshold (216);, increasing an attenuation setting (218) of an input signal; and g) storing (222) said attenuation setting in a memory.

4. (currently amended) The method according to claim 3 wherein steps ~~e) through g)~~ b) through e) are repeated in a loop until said ratio is below said threshold.
5. (currently amended) The method according to claim 3 ~~or 4~~ wherein ~~for determining~~ calculating said ratio comprises taking a root mean square of said on-channel baseband signal level (210) and a root mean square of said noise level (212) ~~are taken~~.
6. (currently amended) The method according to ~~any one of claim[[s]] 3 to 5~~ wherein after increasing said attenuation setting a delay is applied (220) to execution of software, which based on next samples, calculates said ratio and increases said attenuation setting.
7. (currently amended) The method according to ~~any one of claim[[s]] 3 to 6~~ wherein in said step of storing said baseband signal level and said noise level measured at LP2 are stored in said memory.
8. (currently amended) The Cartesian loop transmitter ~~A radio transmitter according to any one of claim[[s]] 1 to 2 and which wherein the transmitter~~ is operable to provide communications in at least one of TETRA, ~~and/or~~ GSM, ~~and/or~~ IDEN communication systems.
9. (cancelled)